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EXAMINER

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ART UNIT

PAPER NUMBER

2667

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/090,138	Applicant(s) LEVY ET AL.	
	Examiner Kerri M. Dyke	Art Unit 2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-47 is/are rejected.
- 7) ☒ Claim(s) 2-30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 March 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “215” has been used to designate both SLA database and communication line. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claims 2-30 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 1 is an arrangement, i.e. device, claim. Claims 2-30 recite functional limitations for the device and therefore do not further limit the parent claim. An apparatus claim does not give patentable weight to recited functionality, see MPEP § 2113. See also *Hewlett-Packard Co. v Bausch & Lomb, Inc.* 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990), where it is stated that “apparatus claims cover what a device *is* not what a device *does* (emphasis in original).”

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3. Claims 37, 38, and 40 are objected to because of the following informalities: Claim 37 depends from claim 7, but claim 7 is not a method claim. Based upon the structure of previous claims the examiner is assuming claim 37 should actually depend from claim 31. Claim 38 is assumed to depend from claim 37 and claim 40 is assumed to depend from claim 31 for similar reasons. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 1, 8, 9, 11, 13, 14, 18, 20, 28, 29, 31, 37, 39, 41, and 43 are rejected under 35 U.S.C. 102(a) as being anticipated by applicant admitted prior art (AAPA).

6. In regards to claim 1, AAPA discloses an arrangement comprising: a first module that receives information from a plurality of routers of a network; a second module that carries out analysis of said information relative to preselected thresholds; a third module responsive to analysis results of said second module that, when said analysis results indicate an unsatisfactory operational condition in said network, develops configuration-information regarding configuration files of one or more of said routers; and a fourth module that transmits said configuration-information to said one or more of said routers to modify a configuration file within said one or more of said routers that, in turn, modifies operation of said one or more of said routers. A module is defined as a self-contained component that is used in combination with other components. Although module is normally assumed to mean a mechanical or man-made

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device, a human meets the definition. Therefore the arrangement disclosed in figure 1 and described in paragraph 5 of the instant application satisfies the limitations of claim 1. Analyzer 110 is the first module, controller 120 and analyzer 110 function together as the second module, administrator terminal and the administrator 130 are the third module. The fourth module can be interpreted to be either the terminal 130 or the analyzer 110. It may be the terminal because it is at the terminal that the new configuration is initially entered. The terminal then propagates the new configuration through the controller and analyzer to the routers. Alternatively, the analyzer can be viewed as the fourth module because it is the module that is in direct communication with the routers.

7. Claim 31 discloses the limitations of claim 1 in a method format. Claim 31 is rejected upon the same grounds as claim 1. Claim 31 in its present form does not disqualify a human network administrator from using a computer to develop a new configuration file.

8. In regards to claims 8 and 37, AAPA discloses the arrangement of claim 1 where said second module, in said analysis, distills performance information from said information received from said routers, and evaluates said performance information relative to said preselected thresholds. Paragraph 5 discloses that analyzer distills the information into a summary form and then controller uses the summary to determine if service-level thresholds have been violated.

9. In regards to claim 9, AAPA discloses the arrangement of claim 8 wherein said analysis determines whether said performance information exceeds one or more of said thresholds. Paragraph 5 discloses that there is a plurality of customers each with at least one service agreement. The summary information is evaluated in relation to each of the agreements and all of the agreements that are in violation are communicated to the admin terminal.

10. In regards to claims 11 and 39, AAPA discloses the arrangement of claim 1 where the thresholds relate to one or more from a set including load carried by said routers, classes of applications, service level agreements, applications of specific customers, and quality-of-service parameters. Paragraph 5 discloses that information related to congestion, i.e. load, and service level agreements are used as the thresholds to indicate a new configuration is needed.

11. In regards to claim 13, AAPA discloses the arrangement of claim 1 further comprises a memory that stores quality-of-service parameters, service level agreements parameters, and a configuration file for each of said routers that is controlled by a configuration file. Quality of service parameters, service level agreement parameters, and configuration files are meant to be used or referred to many times and therefore a memory must be present in order to store the information.

12. In regards to claim 14, AAPA discloses the arrangement of claim 1 where said thresholds are related to said quality-of-service parameters that are stored in said memory, and to said service level agreements parameters that are stored in said memory. Service level agreements contain quality of service parameters. Therefore, the thresholds are inherently related to both service level agreement parameters and quality of service parameters.

13. In regards to claims 17 and 41, AAPA discloses the arrangement of claim 1 where said configuration-information developed by said third module for one of said routers is a modified configuration file for said one of said routers. Paragraph 5 discloses that the network administrator fashions a modified configuration file.

14. In regards to claim 18, AAPA discloses the arrangement of claim 1 where said configuration-information developed by said third module for one of said routers is a

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modification of said configuration file for said one of said routers. The phrase “modification of said configuration file” is no different than the phrase “modified configuration file” and therefore claim 18 is rejected upon the same grounds as claim 17.

15. In regards to claims 20 and 43, AAPA discloses the arrangement of claim 18 where said modification comprises instructions to replace elements in said configuration file of said one of said routers, or to modify elements in said configuration file of said one of said routers. In order to modify a file the current contents must be changed. The change can be a replacement with radically different data or a smaller change to the current data. In either case the modification inherently contains instructions for either the replacement or modification of elements in the configuration file.

16. In regards to claim 28, AAPA discloses the arrangement of said claim 1, further comprising a network comprised of said plurality of routers, with said routers being coupled to said fourth module. Figure 1 discloses a network of routers coupled to the fourth module.

17. In regards to claim 29, AAPA the arrangement of claim 28 where some of said routers are access routers in said plurality of routers, and remaining ones of said routers in said plurality of routers are backbone routers. Figure 1 discloses the network comprising access routers and backbone routers.

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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19. Claims 2-7, 10, 12, 15, 16, 19, 21-26, 27, 30, 32-36, 38, 40, 42, 44, and 45-47 rejected under 35 U.S.C. 103(a) as being unpatentable over applicant admitted prior art (AAPA).

20. Claims 2-6 and 32-35 are directed towards methods for receiving information about the routers. It is well known in the art to use alarms, which are received without a request, because some conditions require immediate attention and cannot wait until the next polling time. It is also well known in the art to use polling to receive routine measurements because polling ensures that information is received from every router according to a periodic or other algorithmic function without contention between the routers. It is further well known to employ both alarms and polling so that conditions which need immediate attention will be dealt with quickly and otherwise data will be reported in a known and contention free manner.

21. In regards to claims 7 and 36, AAPA discloses the arrangement of claim 6 where said first type of information further includes information relating to packet flow through said routers. Paragraph 5 discloses that network congestion is evaluated. Therefore, information about packet flow must be received by the analyzer.

22. Claims 15, 16, 19, 21-23, 27, 42, 44, 45, and 47 are directed to the contents of the configuration files and sub-configuration files. The possible contents of a (sub)configuration file, the possible modifications, and the effects of those modifications is well known to one of ordinary skill in the art because network administrators must be familiar with configuration files in order to properly manage and maintain their networks.

23. Claims 24-26 and 46 are methods for directing the installation of a configuration file. It is well known in the art that there are two methods for installation. One is automatic installation where a file contains a directive that causes installation of the file upon receipt. The other

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method is manual installation where a directive is sent from a transmitter directing the installation of the file. People of all skill levels, including those of ordinary skill in the art are familiar with these two installation types due to the fact that personal computers are popular and come equipped with the auto-run program, which allows a program to install itself. If auto-run is disabled the program is installed in response to a manual directive.

24. Claim 30 is for a well-known method to measure packet latency or delay. Besides the fact that it is well known to send test packets in order to measure end-to-end delay, AAPA discloses that information about congestion is received by the analyzer and delay is related to congestion.

Allowable Subject Matter

25. The examiner believes that claim 31 can be amended to distinguish it from the prior art. The current form of claim 31 does not adequately disqualify a human network administrator from using a computer to modify the configuration files. This situation is disclosed to be known by the applicant and it is the deficiencies of this approach that the applicant is attempting to overcome. Claim 31 would be considered to be patentably distinguished from the prior art if it was clear that the modification of the configuration file is done completely within the computer with no intervention by a network administrator or similar entity. The examiner does not believe that a patentably distinguished apparatus for carrying out the method exists, but claims 2-30 would of course be allowable if they depended from an allowable base claim.

Conclusion

26. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. There have been many attempts to increase the automation and simplify the process

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of configuring or reconfiguring a network, but all so far have required the intervention of a system administrator.

- a. Hansen discloses a GUI to help simplify and guide the decisions of the administrator.
- b. Piazza and Molnar disclose an automatic installation feature. Upon initialization the router will search for and select an appropriate configuration file among the predefined files made available by the administrator.
- c. Reichmeyer discloses a method for remote configuration by a system administrator in order to avoid the expense of needing a skilled administrator on-site in order to perform a reconfiguration.
- d. Malik discloses a method for increasing automation by using templates, but the administrator defines the templates.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kerri M. Dyke whose telephone number is (571) 272-0542. The examiner can normally be reached on Monday through Friday, 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

kmd


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